MARSH CREEK WATERSHED (LR05)

Marsh Creek: silt laden

The Marsh Creek Watershed drains 44 square miles and is surrounded by agricultural fields. It has a medium susceptibility for groundwater contamination based on WDNR groundwater susceptibility mapping. Marsh Creek watershed was selected as an Environmental Quality Improvement Program (EQIP) project. This program, funded by the U.S. Natural Resources Conservation Service (NRCS), targets critical watersheds for implementation of agricultural best management practices that will also protect water resources. This watershed does not contain any municipalities within its boundaries, nor any named lakes.

Smallmouth bass

Marsh Creek The Marsh Creek watershed is a small agricultural watershed. Much of the middle and upper reaches of the creek are ditched and straightened, destroying habitat and making the stream silt-laden and sluggish. Cropland erosion is presently the primary cause of water quality problems. The reach below State Highway 184 to the Rock River flows through a more hilly, diverse terrain and has a smallmouth bass fishery. Water quality in the lower half of the stream may benefit by the application of best management practices.

Resources of Concern

Innocence

WDNR's Heritage Resources Database indicates that the following water-dependent endangered, threatened or special concern species and/or communities have been sighted in this watershed within the last 20 years.

Table 1. Endangered, Threatened or Species of Special Concern

Species Common Name	Latin Name	Habitat
Innocence, azure bluets, Quaker-ladies	*Houstonia caerulea*	Marsh Creek lowlands

Black oak

Table 2. Endangered, Threatened or Communities of Special Concern

Plant Community	Location	Indicator Species
Southern Dry Forest, Southern Dry-Mesic Forest Oak Opening	Janesville Nature Preserve (Memorial Park)	Educational use park of morainal hills with shallow, sandy loam soils that have eroded on the slopes. Grazed in past. Burr, white and black oaks on hilltops; red and white oaks in moist slopes and ravines. Small prairie remnants in oak openings.
Southern Dry-Mesic Forest	Riverside Park	City park in NE Janesville, includes dry mesic woods and sandstone cliffs; red oak and basswood; relatively undisturbed.

RECOMMENDATION

White oak

1. The Lower Rock River Basin Team should conduct stream classification and appraisal monitoring for Marsh Creek, including an assessment of specific sources of polluted runoffs that is affecting stream water quality and habitat. [1]

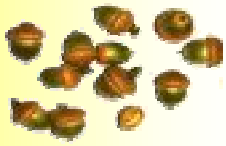
2. WDNR and Rock County Land Conservation Department should seek out partnerships with stakeholders to conduct streambank and in-stream habitat improvement projects in Marsh Creek downstream of STH 184. [1, 2]

[1] These recommendations are a basis for work planning or other decisions, which must be approved by the appropriate DNR division administrator (the recommendations are a starting point for the work planning process.

[2] These recommendations are advisory to the public, local governments, lake management organizations, and other groups or agencies. These recommendations are not binding. No statutory or codified requirements exist

ACKNOWLEDGMENTS

This report benefited from the expertise of Louis Bobolz, David Marshall and Mike Sorge. Photographs were taken by Mike Sorge (smallmouth bass) and from the Wisconsin State Herbarium Eric Epstein (Innocence), Mike Clayton (black and white oak) and Ken Sytsma (red oak); WI Water Resources Clip Art Collection (lily drawing).



Red oak leaves and acorns

REFERENCES

4 Ball, J. R., R. J. Poff and C. W. Threinen. 1970. Surface Water Resources of Rock County, Wisconsin Department of Natural Resources.

17 Fago, D. 1982. Historical Fisheries Database. Wisconsin Department of Natural Resources, South Central Region.

77 WI DNR. Base line stream monitoring. South Central Region. Wisconsin Department of Natural Resources.

78 WI DNR. Watershed Management files. South Central Region. Wisconsin Department of Natural Resources.

Table 3. Streams in the Marsh Creek Watershed (LR05)

Stream Name	WBIC	County	Length (Miles)	Existing Use (Miles)	Potential Use (Miles)	Supporting Potential Use (Miles)	Current Codified Use	303(d) Status	Use Impairment		Data Assess-ment	Data Level	Trend	References
									Source	Impact				
Marsh Creek	0797700	Rock	0 - 6	WWSF/6	Same	Part - 6	WWSF*	N	NPS, PSB, CL, URB, CE	NUT, MAC, DO	M	B4 H4 C1	S	4, 17, 77, 78
			6 - 14	WWFF/8	Same	Part - 8	WWSF*	N	HM, CL, BY, NPS, PSB, SB	FLOW, HAB, TURB, SED, TEMP, DO, NUT, MAC	M	B3 H1	S	
3 Unnamed Streams			4											

This watershed contains no named lakes.